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Cheong 5-1

IN THE UNITED STATES
PATENT AND TRADEMARK OFFICE

PATENT APPLICATION

5 **INVENTORS:** Sang-Wook Cheong
Namjung Hur

CASE: 5-1**Serial No.:** 09/885,471**Group Art Unit:** 1762**Filed:** June 20, 2001**Title:** MgB_2 Superconductors

10 **Commissioner for Patents**
P.O. Box 1450
Alexandria, VA 22313-1450

SIR:

15 **SUPPLEMENTAL DECLARATION UNDER 37 C.F.R. 1.131**

We the Declarants, Sang-Wook Cheong and Namjung Hur, state that:

1. On Aug. 28, 2003, we signed a Declaration under 37 C.F.R. 1.131 for submission along
20 with supporting Exhibits 1 - 4 in the above-referenced patent application. Herein, our
Declaration of Aug. 28, 2003 is referred to as Our Earlier Declaration.

2. Paragraph 14 of Our Earlier Declaration describes experiments performed by Namjung
Hur to obtain pellets of MgBr_2 and associated Sample and Machine Log Notebook pages of
25 Exhibits 2 and 3. A copy of one of these Notebook pages is attached Exhibit B and was dated
Feb. 27, 2001 by Mr. Hur. A copy of the other of these Notebook pages is attached Exhibit C
and was dated Feb. 28, 2001 by Mr. Hur. Mr. Hur prepared both Notebook pages in the U.S.A.

3. With respect to paragraphs 13 - 15 of Our Earlier Declaration, attached Exhibits D and E
30 show other pages from Mr. Hur's Machine Log Notebook. Mr. Hur prepared both Notebook
pages in the U.S.A. Exhibit D is a copy of a page of the Notebook that Mr. Hur dated Mar. 1,
2001. The page records preparations by Mr. Hur on sample BB 146 for obtaining an MgBr_2

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pellet. Exhibit E is a copy of a page of the Notebook that Mr. Hur dated March 2, 2001. The page records preparations by Mr. Hur on sample BB 147 for obtaining an MgBr_2 pellet.

4. Herein, we certify that all statements made of our own knowledge are true and that all
5 statements made on information and belief are believed to be true. We also understand that
willful false statements and the like are punishable by fine, imprisonment or both under 18
U.S.C. 1001 and that willful false statements and the like may jeopardize the validity of the
application-at-issue or any patent issuing thereon.


10

Date: June 24, 2004

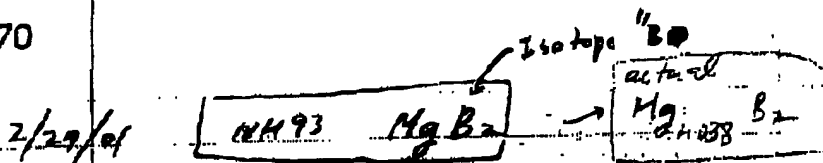

Sang-Wook Cheong

15

Date: June 24, 2004

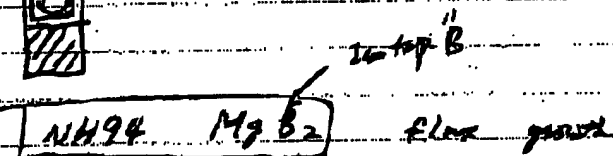
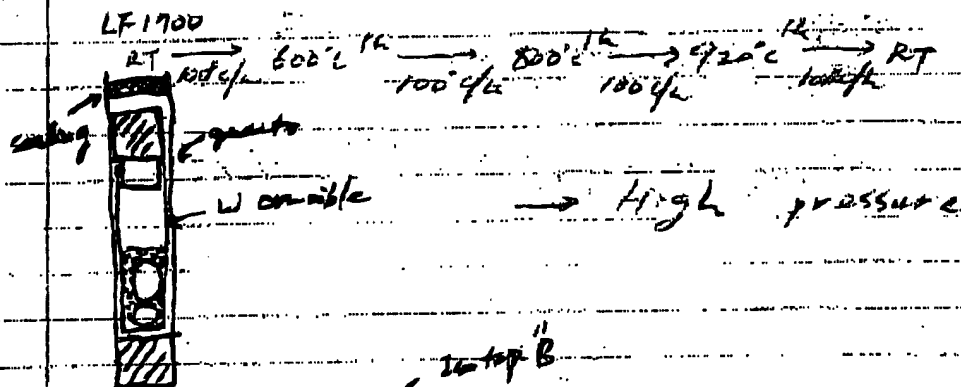

Namjung Hur

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Mg 24.312 1.02 (1.1734)
 B 10.811 2 1.0231

$$B \rightarrow \frac{10.811}{24.312} \times \frac{2}{1.02} \times (1.1734) = 0.87192 \times (1.1734)$$



Mg 24.312 2 (1.8293)
 B 10.811 1 0.4067

$$B \rightarrow \frac{10.811}{24.312} \times \frac{1}{2} \times (1.8293) = 0.22234 \times (1.8293)$$

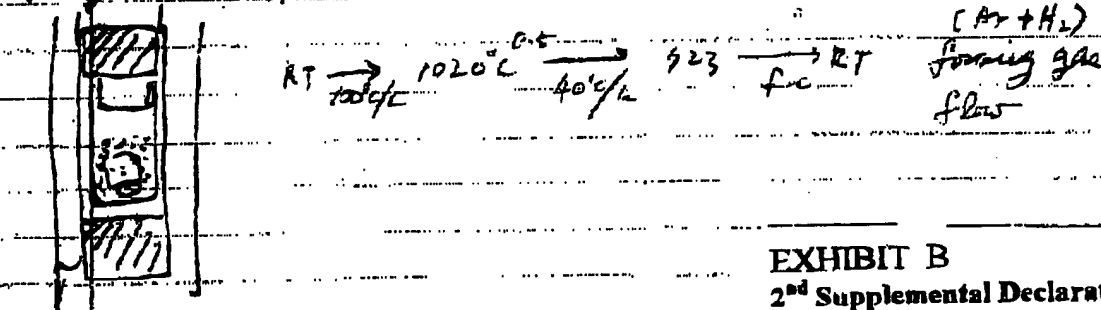


EXHIBIT B

2nd Supplemental Declaration under 1.131

Patent Application No.: 09/885,471

Filed: June 20, 2001

Inventors: Sang-Wook Cheong et al

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3/1/01

BR 145

H₂B₂ (ARFa)

DB 2

(3/4)

T = RT

UR 3000

LR 2000

T = 400°C

UR 6200

LR 5500

T = 850°C

UR 1500

LR 1400

T = 100°C

UR 6100

LR 3300

RT $\xrightarrow{10000/L}$ 400°C $\xrightarrow{1000/L}$ 850°C $\xrightarrow{1000/L}$ AT

EXHIBIT D

2nd Supplemental Declaration under 1.131

Patent Application No.: 09/885,471

Filed: June 20, 2001

Inventors: Sang-Wook Cheong et al

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3/2/01

RB 147

Hg B₂ (A₁P₂)

(3/4")

T = RT

LR 3100

LR 2000

Final : 41°C : LR 6300

LR 4200

RT $\xrightarrow[1000/h]{0.2K}$ 400°C $\xrightarrow[FC]{2K}$ 47

EXHIBIT E

2nd Supplemental Declaration under 1.131

Patent Application No.: 09/885,471

Filed: June 20, 2001

Inventors: Sang-Wook Cheong et al